

1   **CLAIMS**

2   What is claimed is:

3       1. A multidirectional floatation element useful for  
4 assembling decks, walkways and docks comprising:

5       a first generally planar surface, said first surface  
6 adapted for use as a deck;

7       a second surface, said second surface adapted for  
8 receiving and guiding a watercraft;

9       a plurality of side walls for adjoining and maintaining  
10 spacing between said first surface and said second surface;

11       whereby said first surface, said second surface and said  
12 plurality of side walls are continuous and cooperate to form  
13 a multidirectional floatation element, whereby said  
14 multidirectional floatation element may be positioned having  
15 said first surface uppermost for constructing decks and  
16 walkways, whereby said multidirectional floatation element  
17 may be positioned having said second surface uppermost for  
18 constructing a watercraft keel guiding surface, whereby said  
19 multidirectional floatation elements are adapted for  
20 connection to adjacent multidirectional floatation elements.

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22       2. The multidirectional floatation element according to  
23 Claim 1, wherein said multidirectional floatation element  
24 includes an aperture through one of said plurality of side

1 walls, said aperture constructed and arranged to allow the  
2 addition or subtraction of ballast;

3 whereby the buoyancy of said floatation element is  
4 altered by the addition or subtraction of said ballast.

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6 3. The multidirectional floatation element according to  
7 Claim 2, wherein said floatation element includes a plug  
8 constructed and arranged to cooperate with said aperture for  
9 maintaining air-tightness within said multidirectional  
10 floatation element.

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12 4. The multidirectional floatation element according to  
13 Claim 2, wherein said floatation element includes a vented  
14 plug constructed and arranged to cooperate with said aperture  
15 for allowing air to flow inwardly and outwardly from within  
16 said multidirectional floatation element upon a predetermined  
17 pressure.

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19 5. The multidirectional floatation element according to  
20 Claim 1, wherein said multidirectional floatation element  
21 includes connection means, said connection means adapted for  
22 linking to at least one adjacent multidirectional flotation  
23 element.

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1        6. The multidirectional floatation element according to  
2 Claim 5, wherein said connection means is constructed and  
3 arranged to link adjacent multidirectional floatation  
4 elements together so that the uppermost surfaces of adjacent  
5 floatation elements are substantially coplanar.

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7        7. The multidirectional floatation element according to  
8 Claim 5, wherein said connection means is constructed and  
9 arranged to link adjacent multidirectional floatation  
10 elements together so that the uppermost surfaces of adjacent  
11 floatation elements are vertically offset to create an upper  
12 surface and a lower surface, wherein said upper surface and  
13 said lower surface are about parallel with respect to each  
14 other.

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16        8. The multidirectional floatation element according to  
17 Claim 5, wherein said connection means includes a plurality  
18 of horizontally projecting tabs, said plurality of  
19 horizontally projecting tabs each including at least one  
20 aperture therethrough, said aperture constructed and arranged  
21 to cooperate with at least one horizontally projecting tab of  
22 an adjacent floatation element.

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1           9. The multidirectional floatation element according to  
2 Claim 8, wherein said horizontally projecting tabs extend  
3 generally from intersecting corners of said side walls at  
4 different levels for overlapping cooperation with  
5 horizontally projecting tabs of adjacent floatation elements.

6

7           10. The multidirectional floatation element according to  
8 Claim 9, wherein said horizontally projecting tabs extending  
9 generally from intersecting corners of said side walls at  
10 different levels are generally offset closer to said first  
11 surface than to said second surface.

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13           11. The multidirectional floatation element according to  
14 Claim 9, wherein said horizontally projecting tabs extending  
15 generally from intersecting corners of said side walls at  
16 different levels are generally offset closer to said second  
17 surface than to said first surface.

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19           12. The multidirectional floatation element according to  
20 Claim 1, wherein said second surface includes a V-shaped  
21 channel extending across a center portion of said  
22 multidirectional floatation element, said V-shaped channel  
23 including two generally parallel and planar surfaces, said  
24 two generally parallel and planar surfaces diverging

1 outwardly to cooperate with a boat keel to provide a guiding  
2 surface therefor.

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4 13. The multidirectional floatation element according  
5 to Claim 12, wherein said two generally parallel and planar  
6 surfaces are spaced apart and connected by a generally planar  
7 lower surface, said lower surface generally parallel to said  
8 first surface.

9

10 14. The multidirectional floatation element according to  
11 claim 1, wherein said floatation element includes four side  
12 walls, said side walls arranged to form a generally  
13 rectangular shape.

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15 15. The multidirectional floatation element according to  
16 claim 14, wherein said rectangular shape is about 19 inches  
17 across.

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19 16. The multidirectional floatation element according to  
20 claim 15, wherein said side walls are between about 6 inches  
21 in height and about 30 inches in height.

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23 17. The multidirectional floatation element according to  
24 claim 1, wherein said floatation element includes six side

1 walls, said side walls arranged to form a generally hexagonal  
2 shape.

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4 18. The multidirectional floatation element according to  
5 claim 1, wherein said floatation element includes eight side  
6 walls, said side walls arranged to form a generally octagonal  
7 shape.

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9 19. The multidirectional floatation element according to  
10 claim 14, wherein at least one of said side walls includes a  
11 semi-circular conduit extending the length thereof and  
12 positioned between said first and said second surfaces,  
13 whereby said semi-circular conduit is constructed and  
14 arranged to cooperate with semi-circular conduits of adjacent  
15 float elements to create a generally circular conduit  
16 extending through adjacent assembled floatation elements.

17

18 20. The multidirectional floatation element according to  
19 claim 19, wherein two of said sidewalls include said semi-  
20 circular conduits.

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22 21. The multidirectional floatation element according to  
23 claim 19, wherein said conduit is adapted for providing a

1 conduit for service utilities through adjacent assembled  
2 floatation elements;

3 whereby said service utilities may be utilized  
4 throughout an assembly constructed of said multidirectional  
5 floatation elements.

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7 22. In a pre-existing floating drive on dry dock  
8 assembly, wherein said floating drive on dry dock is  
9 constructed of a plurality of generally cubical floatation  
10 elements having generally planar uppermost surfaces, wherein  
11 the floatation elements are arranged to form two outwardly  
12 extending arms with an open well between said two arms,  
13 wherein a watercraft is driven longitudinally onto said arms  
14 for docking purposes, a kit for filling the open well of said  
15 floating drive on dry dock assembly comprising:

16 at least one multidirectional floatation element,  
17 wherein said floatation element is constructed and arranged  
18 to fit within said open well between said arms, wherein said  
19 at least one multidirectional floatation element is adapted  
20 to attach to said floatation elements of said arms, wherein  
21 said at least one multidirectional floatation element  
22 includes a first planar surface and a second surface for  
23 guiding a watercraft keel.

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1        23. The kit for filling the open well of a pre-existing  
2 floating drive on dry dock assembly according to claim 22,  
3 wherein said kit includes six multidirectional floatation  
4 elements wherein said multidirectional floatation elements  
5 are constructed and arranged to attach to each other and to  
6 said arms of said pre-existing floating drive on dry dock.

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8        24. The kit for filling the open well of a floating  
9 drive on dry dock assembly according to claim 22, wherein  
10 said at least one multidirectional floatation element  
11 includes:

12        a first generally planar surface, said first surface  
13 adapted for use a deck;

14        a second generally V-shaped surface, said second surface  
15 adapted for receiving and guiding a watercraft;

16        a plurality of side walls for adjoining and maintaining  
17 spacing between said first surface and said second surface;

18        whereby said first surface, said second surface and said  
19 plurality of side walls are continuous and cooperate to form  
20 a multidirectional floatation element.

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22        25. The kit for filling the open well of a floating  
23 drive on dry dock assembly according to claim 24, wherein  
24 said multidirectional floatation element includes an aperture



1 through one of said plurality of side walls, said aperture  
2 constructed and arranged to allow the addition or subtraction  
3 of ballast;

4 whereby buoyancy of said floatation element is altered  
5 by the addition or subtraction of said ballast.

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7 26. The kit for filling the open well of a floating  
8 drive on dry dock assembly according to claim 25, wherein  
9 said floatation element includes a cap constructed and  
10 arranged to cooperate with said aperture for maintaining air-  
11 tightness within said multidirectional floatation element.

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13 27. The kit for filling the open well of a floating  
14 drive on dry dock assembly according to claim 25, wherein  
15 said floatation element includes a vented cap constructed and  
16 arranged to cooperate with said aperture for allowing air to  
17 flow inwardly and outwardly from within said multidirectional  
18 floatation element upon a predetermined pressure.

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20 28. The kit for filling the open well of a floating  
21 drive on dry dock assembly according to claim 22, wherein  
22 said multidirectional floatation element includes connection  
23 means, said connection means adapted for linking to at least  
24 one adjacent multidirectional floatation element.

1        29. The kit for filling the open well of a floating  
2 drive on dry dock assembly according to claim 28, wherein  
3 said connection means is constructed and arranged to link  
4 adjacent multidirectional floatation elements together so  
5 that the uppermost surfaces of adjacent floatation elements  
6 are substantially coplanar.

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8        30. The kit for filling the open well of a floating  
9 drive on dry dock assembly according to claim 28 wherein said  
10 connection means is constructed and arranged to link adjacent  
11 multidirectional floatation elements together so that the  
12 uppermost surfaces of adjacent floatation elements are  
13 vertically offset to create an upper surface and a lower  
14 surface, wherein said upper surface and said lower surface  
15 are about parallel with respect to each other.

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17        31. The kit for filling the open well of a floating  
18 drive on dry dock assembly according to claim 28, wherein  
19 said connection means includes a plurality of horizontally  
20 projecting tabs, said plurality of horizontally projecting  
21 tabs each including at least one aperture therethrough, said  
22 aperture constructed and arranged to cooperate with at least  
23 one horizontally projecting tab of an adjacent flotation  
24 element.

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2        32. The kit for filling the open well of a floating  
3 drive on dry dock assembly according to claim 31, wherein  
4 said horizontally projecting tabs extend generally from  
5 intersecting corners of said side walls at different levels  
6 for overlapping cooperation with horizontally projecting tabs  
7 of adjacent floatation elements.

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9        33. The kit for filling the open well of a floating  
10 drive on dry dock assembly according to claim 32, wherein  
11 said horizontally projecting tabs extending generally from  
12 intersecting corners of said side walls at different levels  
13 are generally offset closer to said first surface than to  
14 said second surface.

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16        34. The kit for filling the open well of a floating  
17 drive on dry dock assembly according to claim 32, wherein  
18 said horizontally projecting tabs extending generally from  
19 intersecting corners of said side walls at different levels  
20 are generally offset closer to said second surface than to  
21 said first surface.

22

23        35. The kit for filling the open well of a floating  
24 drive on dry dock assembly according to claim 22, wherein

1 said second surface includes a generally V-shaped channel  
2 extending across said multidirectional floatation element,  
3 said V-shaped channel including two generally parallel and  
4 planar surfaces, said two generally parallel and planar  
5 surfaces diverging outwardly to cooperate with a boat keel to  
6 provide a guiding surface therefor.

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8           36. The kit for filling the open well of a floating  
9 drive on dry dock assembly according to claim 35, wherein  
10 said two generally parallel and planar surfaces are spaced  
11 apart and connected by a generally planar lower surface, said  
12 lower surface generally parallel to said first surface.

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14           37. The kit for filling the open well of a floating  
15 drive on dry dock assembly according to claim 22, wherein  
16 said floatation element includes four side walls, said side  
17 walls arranged to form a generally rectangular shape.

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19           38. The kit for filling the open well of a floating  
20 drive on dry dock assembly according to claim 22, wherein  
21 said multidirectional floatation element is constructed and  
22 arranged for providing service utilities through adjacent  
23 assembled floatation elements;

1       whereby   said   service   utilities   may   be   utilized  
2 throughout a floatation element assembly.

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